IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method for transporting files from a cable headend, comprising:

transforming respective filenames of said files into respective file identifiers, each of said file identifiers comprising a packet identifier (PID) associated with a communications channel selected to transport said file; ~~and~~

wherein said file identifiers are adapted to enable receivers of said communications channels to selectively receive a file by processing the communications channel associated with the file.

2. (original) The method of claim 1, wherein said communications channel transports an MPEG 2 bitstream.

3. (original) The method of claim 1, wherein said communications channel transports Digicipher II data packets.

4. (currently amended) The method of claim 1, wherein said communications channel transports ~~SI~~ Service Information (SI) data packets.

5. (currently amended) The method of claim 1, ~~wherein step (a)~~ wherein, for each of said filenames, said transforming step includes generating a number with an approximately uniform probability distribution.

6. (currently amended) The method of claim [[1]] 5, wherein a first portion of the number is ~~included in the packet~~ used as a payload identifier.

7. (currently amended) The method of claim 6, wherein a second portion of the number is ~~included in the packet~~ used as a multicast identifier.

8. (currently amended) The method of claim 7, further comprising:

detecting a collision condition in which at least two packets are transmitted having the same multicast identifier, each having a respectively different ~~bit sequence~~ filename associated ~~therewith,~~ therewith;

transmitting information associating one of the at least two packets with a non-colliding multicast identifier; and

transmitting the one packet using the non-colliding multicast identifier.

9. (original) The method of claim 8, wherein the non-colliding multicast identifier is formed by adding a constant to the multicast identifier for which the collision condition is detected.

10. (currently amended) The method of claim 1, wherein the ~~bit sequence is a~~ file identifier is a binary number.

11. (currently amended) The method of claim 1, ~~further comprising~~ wherein, for each of the filenames, said transforming step comprises:

calculating the ~~program identifier~~ file identifier based on one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number formed from the respective ~~file name~~ filename.

12. (currently amended) The method of claim 11, ~~wherein step (a) comprises~~ wherein, for each of said filenames, the associated PID is determined by:

(i) determining ~~a program identifier~~ a PID index by the equation:

PID index = X modulo NPIDSON,

where PID index is ~~the program identifier~~ an index into a table, X is a result of performing at least one XOR operation on two or more portions of the one of the group

consisting of a cyclic redundancy code, a hash function and a pseudorandom number, and NPIDSON is a number of packet processors to which payload files are being sent;

(ii) performing a table lookup using the PID index as a lookup parameter; and

(iii) adding an offset to a value output by the table lookup.

13. (currently amended) The method of claim 11, further comprising transmitting a ~~program~~ packet identifier usage bitmap that identifies which ~~program~~ packet identifiers are being used to transmit payload data.

14. (original) The method of claim 11, further comprising:

selecting at least one portion of the one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number; and

transmitting along with a unit of payload data a payload identifier comprising the selected portion.

15. (original) The method of claim 11, wherein the at least one packet is transmitted using a multicast identifier formed from at least one portion of the one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number.

16. (original) The method of claim 15, wherein the multicast identifier is formed by performing an XOR operation on two non-contiguous portions of the one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number.

17. (original) The method of claim 1, wherein the payload data include one of the group consisting of Moving Picture Experts Group (MPEG) 1 packets and MPEG 2 packets.

18. (currently amended) The method of claim 1, ~~wherein:~~

~~a program identifier~~ wherein, for each file identifier, the associated PID is calculated from at least a portion of a cyclic redundancy code calculated from ~~a file name~~ the filename associated with at least one packet of payload data to be transmitted, wherein the method further comprises:~~; and~~

~~step (c) includes~~ transmitting the at least one packet of payload data to a packet processor that is identified by the ~~program identifier~~ PID.

19. (original) A method for receiving a desired packet associated with a bit sequence from a server, comprising the steps of:

(a) calculating a data identifier from the bit sequence associated with the desired packet; and

(b) using the data identifier to receive the packet identified by the data identifier.

20. (original) The method of claim 19, wherein step (a) includes calculating the data identifier based on a common function that is also used by the server to calculate the data identifier when the server determines which data identifier to assign to the packet.

21. (original) The method of claim 20, wherein the data identifier is formed from one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number generated using the bit sequence as an input, further comprising:

selecting at least one portion of the data identifier as a payload identifier; and

detecting payload data having the payload identifier transmitted therewith as the desired data.

22. (original) The method of claim 20, wherein the packet is received using a multicast identifier formed from at least one portion of a one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number generated using the bit sequence as an input.

23. (currently amended) The method of claim 22, further comprising:

detecting a collision condition in which a received packet has a multicast identifier that matches the multicast identifier generated using the bit sequence, but a payload identifier associated with the received packet is different from the [[a]] selected portion of the data identifier;

receiving a transmission associating the one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number with a non-conflicting multicast identifier; and

receiving the desired packet using the non-colliding multicast identifier.

24. (original) The method of claim 19, wherein step (a) includes calculating a 64 bit number, of which a payload identifier is a portion.

25. (currently amended) A method for transmitting data, comprising the steps of:

(a) calculating a plurality of ~~program~~ packet identifiers based on respective bit sequences associated with respective sets of at least one packet;

(b) associating each set of at least one packet with the respective ~~program~~ packet identifier calculated from the bit sequence for that set of at least one packet; and

(c) transmitting to a receiver associated with one of the plurality of ~~program~~ packet identifiers a list including a respective data identifier for each set of at least one packet associated with the same ~~program~~ packet identifier as the receiver.

26. (currently amended) The method of claim 25, wherein step (a) includes generating a number with an approximately uniform distribution using a ~~file name~~ filename as an input.

27. (currently amended) The method of claim 25, wherein each packet has a multicast identifier that is calculated based on the bit sequence associated with the packet, the method further comprising:

detecting a collision condition in which at least two packets are transmitted having the same multicast identifier, each of the at least two packets having a respectively different bit sequence associated ~~therewith,~~ therewith;

transmitting information associating one of the at least two packets with a non-colliding multicast identifier; and

transmitting the one packet using the non-colliding multicast identifier.

28. (currently amended) A method for receiving data, comprising the steps of:

(a) calculating a ~~program~~ packet identifier based on a bit sequence associated with a desired set of at least one packet, the ~~program~~ packet identifier being associated with a receiver of the set of at least one packet; and

(b) receiving a list associated with the ~~program~~ packet identifier, the list containing a plurality of data identifiers, each data identifier in the list corresponding to a respective set of at least one packet that is to be received using that ~~program~~ packet identifier.

29. (currently amended) The method of claim 28, further comprising;

receiving a ~~program~~ packet identifier usage bitmap that identifies which ~~program~~ packet identifiers are being used to transmit payload packets; and

determining whether the desired set of at least one packet is available using the ~~program~~ packet identifier usage bitmap and the calculated ~~program~~ packet identifier.

30. (currently amended) The method of claim 29, further comprising:

detecting a file-not-found condition if the calculated ~~program~~ packet identifier for the desired set of at least one packet is identified as not being used to transmit data in the ~~program~~ packet identifier usage bitmap.

31. (currently amended) The method of claim 29, further comprising:

detecting a file-not-found condition if the calculated ~~program~~ packet identifier for the desired set of at least one packet is identified as being used to transmit

data in the ~~program~~ packet identifier usage bitmap, and the data identifier corresponding to the desired set of at least one packet is not included in the list containing the plurality of data identifiers for that receiver.

32. (currently amended) A system for transmitting ~~at least one~~ a file from a sender to a receiver, the system comprising:

a sender storage medium for storing said ~~at least one~~ file, said ~~at least one~~ file having a corresponding file identifier;

a converter for converting the contents of said ~~at least one~~ file into ~~at least one~~ a bit stream to be transmitted; and

a sender transformer for providing a key based on said file identifier;

said converter incorporating said key into said bit stream for transmission to said receiver.

33. (currently amended) The system of claim 32 wherein said receiver is configured to select said ~~said at least one~~ file by means of said data identifier.

34. (currently amended) The system of claim 32, wherein the server transmits a ~~program~~ packet identifier usage bitmap that identifies which ~~program identifiers are~~ packet identifier is being used to transmit payload data.

35. (currently amended) The system of claim 32, wherein the system further comprises a receiver that includes:

a processor for calculating the ~~program~~ packet identifier for a desired set of at least one packet using the same calculation used by the server to calculate the ~~program~~ packet identifier for the at least one packet, and

the processor detects a file-not-found condition if the ~~program~~ packet identifier for the desired at least one packet is not listed in the ~~program~~ packet identifier usage bitmap as being used to transmit payload data.

36. (original) A system for receiving data, comprising:

a client processor that calculates a payload identifier based on a bit sequence associated with a given set of at least one packet,

the client processor using the payload identifier to receive the given set of at least one packet from a server.

37. (original) The system of claim 35, wherein the client processor generates a number with an approximately uniform probability distribution, and the payload identifier is at least a portion of the generated number.

38. (original) The system of claim 37, wherein a second portion of the generated number is used as a multicast identifier.

39. (currently amended) The system of claim 38, wherein the client includes:

means for detecting a collision condition in which a received packet has a multicast identifier that matches the multicast identifier generated using the bit sequence, but a payload identifier received with the packet is different from the payload identifier calculated by the client ~~processor,~~ processor;

mean for receiving information associating the desired set of at least one packet with a non-colliding multicast identifier; and

means for receiving the desired packet using the non-colliding multicast identifier.

40. (original) The system of claim 36, wherein the bit sequence is a file identifier.

41. (currently amended) The system of claim 36, wherein the bit sequence is a filename and the client calculates the data identifier based on one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number formed from the ~~file name~~ filename.

42. (original) A computer readable medium encoded with computer program code, wherein when the computer program code is executed by a server processor, the server processor performs a method for transmitting a packet associated with a bit sequence, comprising the steps of:

(a) calculating a data identifier based on the bit sequence;

(b) assigning the data identifier to the packet; and

(c) transmitting said packet to a receiver using the data identifier.

43. (original) A method of transmitting payload data from a headend to a television converter, comprising the steps of:

spinning a plurality of data units from the group consisting of packets and files without transmitting a directory of all of the data units being spun; and

calculating information used to spin the units of data by a common calculation that is used by the television converter to receive the units of data without a directory of all of the data units being spun.

44. (currently amended) In a system including at least one file storage medium, said file storage medium including at least one file to be transported from a file sender to a file receiver, wherein each of said at least one ~~files~~ file to be transported has associated therewith a corresponding file identifier, a sender comprising:

a packetizer;[[,]]

a transform;

a mulitplexer;

at least one file manager communicating with said file storage medium, said packetizer and said transform such that said files on said file storage medium are provided to said packetizer and said corresponding filenames are provided to said transform;[[,]]

said packetizer providing at least one corresponding data packet comprising said file to said multiplexer;

said transform providing a packet identifier based upon said corresponding filename to said mulitplexer;

for each file to be transported said multiplexer providing a packetized bitstream including said at least one file to be transported, each packet of said bitstream including said file identifier and at least a portion of said file.

45. (original) The system of claim 44 further including a data carousel in communication with said packetizer and said mulitplexer, wherein said packetizer provides said packets to said data carousel based upon said corresponding file identifier.

46. (currently amended) In a system including at least one file storage medium including at least one file to be transported from a sender to a receiver, wherein each of said at least one ~~files~~ file to be transported has associated therewith a corresponding file identifier, a receiver comprising:

at least one tunable filter;

a transform;

a processor[[;]] programmed to utilize said at least one file to be transported; said processor providing said filename of said at least one file to be utilized to said transform;

said transform providing a packet identifier corresponding to said at least one filename to a tunable filter such that said tunable filter selects packets comprising said file and provides said selected packets to a packet processor, said packet processor providing said file to said processor.